

- In the Specification:

- Please amend the paragraph starting at page 1, line 5 as follows.

--The present invention relates to a method of ~~reproducing~~ refurbishing a process cartridge detachably attachable to, for example, the main body of an electrophotographic image forming apparatus.--

Please amend the paragraph starting at page 1, line 13 as follows.

--An electrophotographic copy machine, an electrophotographic printer (a laser printer, an LED printer, and the like) a facsimile apparatus, a word processor, and the like, for example, are included as ~~a example~~ an example of the electrophotographic image forming apparatus.--

Please amend the paragraph starting at page 2, line 14 as follows.

--Since the process cartridge forms an image on a recording medium using a developing agent, the developing agent is consumed and ~~deteriorated~~ deteriorates as images are formed. When the developing agent is consumed and ~~deteriorated~~ deteriorates to such a degree that an image cannot be formed, the process cartridge loses its commercial value.--

Please amend the paragraph starting at page 2, line 21 as follows.

--To cope with this problem, although the process cartridge must be replaced, it is recently desired to reuse the process cartridge whose life has been ended as far as possible from a ~~view point~~ viewpoint of environmental conservation, and ~~reproduction~~ refurbishing of process cartridges has been conducted.--

Please amend the paragraph starting at page 2, line 27 as follows.

--As a conventional method of ~~reproducing~~ refurbishing the process cartridge, there is a method of breaking down and ~~reproducing~~ refurbishing a cartridge composed of a developing agent frame or a developing frame swingably coupled with a drum frame by breaking down a cartridge main body by extracting a pin or the like that swingably couples both the frames (refer to, for example, Japanese Patent Application Laid-Open Nos. 2002-14593 (pages 23-26) and H07-121086 (pages 22-25)).--

Please amend the paragraph starting at page 3, line 9 as follows.

--Further, there is a method of breaking down and ~~reproducing~~ refurbishing a cartridge composed of a plurality of frames separably coupled with each other by separating a developing agent frame from a development frame (refer to, for example, Japanese Patent Application Laid-Open No. H06-130740 (pages 5-7)).--

Please amend the paragraph starting at page 3, line 16 as follows.

--However, since the conventional process cartridge ~~reproducing~~ refurbishing methods as described above are very troublesome and time consuming, a simpler ~~reproducing~~ refurbishing method has been desired.--

Please amend the paragraph starting at page 3, line 20 as follows.

--Further, there has been desired a simple ~~reproducing~~ refurbishing method capable of recommercializing a process cartridge whose commercial value is lost owing to the developing agent contained therein being consumed and ~~deteriorated~~ deteriorating.--

Please amend the paragraph starting at page 3, line 27 as follows.

--An object of the present invention is to provide a method of simply ~~reproducing~~ refurbishing a process cartridge.--

Please amend the paragraph starting at page 4, line 3 as follows.

--Another object of the present invention is to provide a process cartridge ~~reproducing~~ refurbishing method capable of recommercializing a process cartridge whose developing agent is consumed and ~~deteriorated~~ suffered deterioration to such a degree that an image having quality ~~satisfied by~~ satisfactory to a user cannot be formed.--

Please amend the paragraph starting at page 4, line 9 as follows.

--Still another object of the present invention is to provide a method of ~~reproducing~~ refurbishing a process cartridge that is detachably attachable to the body of an electrophotographic image forming apparatus and comprises an electrophotographic photosensitive drum, a charging unit for charging the electrophotographic photosensitive drum, and a development unit for developing a latent image formed on the electrophotographic photosensitive drum using a development roller, wherein the electrophotographic photosensitive drum and the charging unit are attached to the development unit, the method comprising:--

Please amend the paragraph starting at page 4, line 22 as follows.

--(a) a side plate removing step of removing first and second side plates disposed to the process cartridge at both the lengthwise ends of the process cartridge thereof in a lengthwise direction;--

Please amend the paragraph starting at page 4, line 26 as follows.

--(b) a charging unit ~~removing~~ detaching step of ~~removing~~ detaching the charging unit from the development unit;--

Please amend the paragraph starting at page 5, line 13 as follows.

--(g) a charging unit attaching step of attaching the charging unit to the development unit to which the new electrophotographic photosensitive drum is attached; and--

Please amend the paragraph starting at page 6, line 1 as follows.

--A further object of the present invention is to provide a method of ~~reproducing~~ refurbishing a process cartridge that is detachably attachable to the body of an electrophotographic image forming apparatus and comprises an electrophotographic photosensitive drum, a charging unit for charging the electrophotographic photosensitive drum, and a development unit for developing a latent image formed on the electrophotographic photosensitive drum using a development roller, wherein the electrophotographic photosensitive drum and the charging unit are attached to the development unit, the method comprising:--

Please amend the paragraph starting at page 6, line 14 as follows.

--(a) a side plate removing step of removing first and second side plates disposed ~~to the process cartridge~~ at both the lengthwise ends thereof in a lengthwise direction of the process cartridge;--

Please amend the paragraph starting at page 6, line 18 as follows.

--(b) a charging unit ~~removing~~ detaching step of ~~removing~~ detaching the charging unit from the development unit;--

Please amend the paragraph starting at page 7, line 14 as follows.

--A still further object of the present invention is to provide a method of ~~reproducing~~ refurbishing a process cartridge that is detachably attachable to the body of an electrophotographic image forming apparatus and comprises an electrophotographic photosensitive drum, a charging unit for charging the electrophotographic photosensitive drum, and a development unit for developing a latent image formed on the electrophotographic photosensitive drum using a development roller, wherein the electrophotographic photosensitive drum and the charging unit are attached to the development unit, the method comprising:--

Please amend the paragraph starting at page 7, line 27 as follows.

--(a) a side plate removing step of removing first and second side plates disposed ~~to the process cartridge~~ at both the lengthwise ends thereof in a lengthwise direction of the process cartridge;--

Please amend the paragraph starting at page 8, line 4 as follows.

--(b) a charging unit ~~removing~~ detaching step of ~~removing~~ detaching the charging unit from the development unit;--

Please amend the paragraph starting at page 8, line 9 as follows.

--(d) a cover member removing step of removing from the development unit a cover member for covering the surface of the development roller except the portion thereof facing the electrophotographic photosensitive drum and holding a sheet member in contact with the electrophotographic photosensitive drum in the lengthwise direction; ~~from the development unit;--~~

Please amend the paragraph starting at page 8, line 16 as follows.

--(e) a pin member extracting step of extracting from the development first and second pin members for fixing bearings that rotatably support the development roller at both the ends thereof; ~~from the development unit;--~~

Please amend the paragraph starting at page 8, line 20 as follows.

--(f) a regulation member removing step of removing from the development unit a regulation member for regulating the angle in a rotational direction of a magnet roller included in the development roller; ~~from the development unit;--~~

Please amend the paragraph starting at page 8, line 27 as follows.

--(h) a developing agent ~~in development unit~~ evacuating step of evacuating the developing agent in the development unit from the opening of the development unit that appears when the development roller is removed;--

Please amend the paragraph starting at page 9, line 5 as follows.

--(i) a developing agent ~~deposited on development roller~~ removing step of removing the developing agent deposited on the development roller;--

Please amend the paragraph starting at page 9, line 14 as follows.

--(l) a regulation member attaching step of attaching the regulation member to the development unit;--

Please amend the paragraph starting at page 9, line 24 as follows.

--(p) a charging unit attaching step of attaching the charging unit to the development unit to which the electrophotographic photosensitive drum is attached; and--

Please amend the paragraph starting at page 10, line 13 as follows.

--A yet still further object of the present invention is to provide a method of ~~reproducing~~ refurbishing a process cartridge that is detachably attachable to the body of an electrophotographic image forming apparatus and comprises an electrophotographic photosensitive drum, a charging unit for charging the electrophotographic photosensitive drum, and a development unit for developing a latent image formed on the electrophotographic photosensitive drum using a

- development roller, wherein the electrophotographic photosensitive drum and the charging unit  
- are attached to the development unit, the method comprising:--

Please amend the paragraph starting at page 10, line 25 as follows.

--(a) an open/close shutter opening step of opening ~~the~~ an open/close shutter of a developing agent replenishing port disposed ~~to~~ in the development unit;--

Please amend the paragraph starting at page 11, line 1 as follows.

--(b) a first developing agent ~~in development unit~~ evacuating step of evacuating the developing agent in the development unit from the developing agent replenishing port whose open/close shutter is opened;--

Please amend the paragraph starting at page 11, line 8 as follows.

--(d) a side plate removing step of removing first and second side plates disposed ~~to the process cartridge~~ at both the lengthwise ends thereof ~~in a lengthwise direction of the process cartridge~~ cartridge;--

Please amend the paragraph starting at page 11, line 12 as follows.

--(e) a charging unit ~~removing~~ detaching step of ~~removing~~ detaching the charging unit from the development unit;--

Please amend the paragraph starting at page 11, line 17 as follows.



--(g) a cover member removing step of removing from the development unit a cover member for covering the surface of the development roller except for the portion thereof facing the electrophotographic photosensitive drum and holding a sheet member in contact with the electrophotographic photosensitive drum in the lengthwise direction, ~~from the development unit;~~

Please amend the paragraph starting at page 11, line 24 as follows.

--(h) a pin member extracting step of extracting from the development unit first and second pin members for fixing bearings that rotatably support the development roller at both the ends thereof, ~~from the development unit;~~--

Please amend the paragraph starting at page 12, line 1 as follows.

--(i) a regulation member removing step of removing from the development unit a regulation member for regulating the angle in a rotational direction of a magnet roller included in the development roller, ~~from the development unit;~~

Please amend the paragraph starting at page 12, line 8 as follows.

--(k) a second developing agent ~~in development unit~~ evacuating step of evacuating the developing agent in the development unit from the opening of the development unit that appears when the development roller is removed;--

Please amend the paragraph starting at page 12, line 13 as follows.

--(l) a developing agent ~~deposited on development roller~~ removing step of removing the developing agent deposited on the development roller;--

Please amend the paragraph starting at page 13, line 5 as follows.

--(s) a charging unit attaching step of attaching the charging unit to the development unit to which the electrophotographic photosensitive drum is attached; and--

Please amend the paragraph starting at page 13, line 22 as follows.

--FIG. 1 is a schematic longitudinal sectional view of the main body of a color electrophotographic image forming apparatus according to a first embodiment;--

Please amend the paragraph starting at page 13, line 25 as follows.

--FIG. 2 is a schematic longitudinal sectional view of a process cartridge and a toner replenishing container according to the first embodiment;--

Please amend the paragraph starting at page 14, line 5 as follows.

--FIG. 4 is a schematic lateral sectional view of the process cartridge in a longitudinal direction according to the first embodiment;--

Please amend the paragraph starting at page 14, line 17 as follows.

--FIG. 8 is a perspective view showing a ~~reproduction~~ refurbishing step of the photosensitive drum unit according to the first embodiment;--

Please amend the paragraph starting at page 15, line 6 as follows.

--FIG. 13 is a schematic sectional view showing a state that a development sleeve according to a second embodiment is supported;--

Please amend the paragraph starting at page 16, line 1 as follows.

--A color electrophotographic image forming apparatus according to a first embodiment will be explained below with reference to the drawings. In the following explanation, the lengthwise direction ~~means~~ is the same direction as the axial direction of an electrophotographic photosensitive member (hereinafter, referred to as a photosensitive drum 2) that is perpendicular to the transporting direction of a recording medium 52. Right and left directions ~~mean~~ are both the right and left sides of a direction in which the recording medium 52 is transported. Further, the upper and lower directions ~~means~~ are the upper and lower sides of an attached cartridge.--

Please amend the paragraph starting at page 16, line 21 as follows.

--An image forming section of the apparatus body 100 of the color laser beam printer includes four process cartridges 1Y, 1M, 1C, 1K (yellow, magenta, cyan, and black) each provided with the photosensitive drum 2, i.e. an electrophotographic photosensitive member acting as an image bearing member. Further, exposure means 51Y, 51M, 51C, 51K (laser beam ~~optically~~ optical scanning system) are disposed in parallel with each other above the process cartridges 1Y, 1M, 1C, 1K, respectively in correspondence to the respective colors.--

Please amend the paragraph starting at page 18, line 7 as follows.

--The sheet feeding section feeds the recording medium 52 to the image forming section.

The sheet feeding section is mainly composed of a sheet feeding cassette 53a on which a plurality of the recording ~~mediums~~ media 52 are stacked, a sheet feeding roller 53b, retard rollers 53c for preventing the feed of overlapped sheets, a sheet feeding guide 53d, and registration rollers 53g.--

Please amend the paragraph starting at page 18, line 15 as follows.

--The sheet feeding roller 53b is rotated in accordance with an image forming operation and feeds the recording ~~mediums~~ media 52 in the sheet feeding cassette 53a one by one in a separated state. The recording medium 52 is guided by the sheet feeding guide 53d and transported to the registration rollers 53g through transportation rollers 53e and 53f.--

Please amend the paragraph starting at page 18, line 22 as follows.

--The rotation of the registration rollers 53g is stopped just after the recording medium 52 is transported, and the oblique travel of the recording ~~mediums~~ media 52 can be corrected by the abutment of the recording ~~medium~~ media 52 against the nip portion of the registration rollers 53g.--

Please amend the paragraph starting at page 19, line 16 as follows.

--In this embodiment, the number of ~~rotation~~ rotations of the photosensitive drum 2, for example, is counted, and when it exceeds a predetermined number of counts, ~~it is notified a~~ notification is produced, the notification indicating that the life of the cartridges 1Y, 1M, 1C, 1K is ended.--

Please amend the paragraph starting at page 21, line 14 as follows.

--The film 3e is disposed in parallel with the charging roller 3a in the lengthwise direction thereof. Further, the film 3e is disposed such that it is fixed to the supporting member 3f at an end thereof and forms a contact nip together with the charging roller 3a on the surface of it in the vicinity of the free end thereof, the supporting member 3f making a predetermined amount of reciprocating motion in the lengthwise direction. When the supporting member 3f is reciprocatingly driven ~~in by~~ the predetermined amount in the lengthwise direction by ~~not-shown~~ unillustrated drive means, the surface of the charging roller 3a is in sliding contact with the film 3e. With this operation, materials (fine powder toner, external additives, and the like) deposited on the surface of the charging roller 3a are removed.--

Please amend the paragraph starting at page 22, line 7 as follows.

--First, the cleanerless system employed in the image forming apparatus of this embodiment will be explained. In the cleanerless system, the toner remaining on the photosensitive drum 2 after it is transferred is carried to a development ~~section c~~ section "c" passing through a charging section "a" and an exposure section "b", as the photosensitive drum 2 rotates successively. Then, the remaining toner is simultaneously developed and cleaned (collected) by the development means.--

Please amend the paragraph starting at page 23, line 6 as follows.

--Further, to effectively execute the simultaneous development and cleaning of the toner remaining on the surface of the photosensitive drum 2 by the development means, it is essential

that the charged polarity of the toner, which remains on the surface of the photosensitive drum 2 and is carried to the development section c, be the normal polarity as well as the having an amount of charge ~~of the toner be~~ that is sufficient for the development means to develop an electrostatic latent image on the photosensitive drum 2. The reversed toner and the toner having an insufficient amount of charge cannot be removed or collected from the photosensitive drum 2 by the development means and they cause a faulty image.--

Please amend the paragraph starting at page 23, line 20 as follows.

--Further, as the needs of users ~~are~~ have diversified in recent years, ~~since an image it is~~ common for an image, such as a photographic image having a high print ~~rate is~~ rate, to be continuously printed, generating a large amount of remaining toner ~~is generated at a~~ at one time, which ~~is further contributory~~ further contributes to the occurrence of the above problem.--

Please amend the paragraph starting at page 23, line 26 as follows.

--To cope with the problem, the embodiment is provided with remaining toner (image of a remaining developing agent) uniforming means 3g to make the toner remaining on the photosensitive drum 2 uniform at a position downstream of a transfer section d in the rotating direction of the photosensitive drum 2. Further, toner (developing agent) charge control means 3h is disposed at a position downstream of the remaining toner uniforming means 3g in the rotating direction of the photosensitive drum 2 and upstream of the charging section "a" in the rotating direction thereof to make the charged polarity of the remaining toner ~~to~~ a negative polarity as the normal polarity.--

Please amend the paragraph starting at page 24, line 12 as follows.

--The toner remaining on a pattern on the photosensitive drum 2, which is carried from the transfer section d to the toner charge control means 3h, is dispersed and distributed on the photosensitive drum 2 by the remaining toner uniforming means 3g even if its amount is large, so that the toner is ~~made to~~ placed in a non-pattern state.--

Please amend the paragraph starting at page 24, line 19 as follows.

--Accordingly, since no toner is concentrated to a part of the toner charge control means 3h, the remaining toner is sufficiently charged to the normal polarity in its entirety at all times by the toner charge control means 3h, thereby effectively preventing the deposition of the remaining toner on the charging roller 3a ~~can be effectively prevented~~. Further, the occurrence of a ghost image from the remaining toner image pattern can be prevented.--

Please amend the paragraph starting at page 25, line 7 as follows.

--Further, the toner uniforming means 3g and the toner charge control means 3h are moved (reciprocated) in the lengthwise direction of the photosensitive drum 2 by ~~a not-shown~~ an unillustrated drive source. With the above arrangement, the toner uniforming means 3g and the toner charge control means 3h are not continuously located at the same position on the photosensitive drum 2. When an excessively charged portion ~~and a~~ and an insufficiently charged portion exist due to, for example, the irregular resistance of the toner charge control means 3h, they do not occur at the same portion of the surface of the photosensitive drum 2 at all times. Therefore, it is prevented or eased that fusion occurs on the photosensitive drum 2 due to the

excessive charging of locally remaining toner and that the remaining toner is deposited on the charging roller 3a by the insufficient charging thereof.--

Please amend the paragraph starting at page 27, line 26 as follows.

--As shown in FIG. 4, the sleeve 4a is disposed at a predetermined gap with respect to the photosensitive drum 2 by rotatably fitting spacers 4k (Figs. 4, 7, and 14) on the diameter-reduced journals 4a1 of the sleeve 4a on both ~~the~~ sides thereof. The predetermined gap is so determined that the developing agent formed on the sleeve 4a is in contact with the photosensitive drum 2 in development. The sleeve 4a is rotated in the development section c at a predetermined peripheral speed in a clockwise direction as shown by an arrow in Fig. 2, i.e. in a counter direction with respect to the rotational direction of the photosensitive drum 2.--

Please amend the paragraph starting at page 28, line 18 as follows.

--A developing agent accommodation unit 4h, in which the developing agent circulates, is partitioned into two compartments by a partition wall 4d in the lengthwise direction except ~~both~~ the at both end portions thereof. Stirring screws 4eA and 4eB are disposed on both the sides of the partition wall 4d.--



Please amend the paragraph starting at page 28, line 24 as follows.

--As shown in FIG. 4, the toner supplied from a toner replenishing container 5 drops to the back side of the stirring screw 4eB, is stirred while being fed to the front side in the lengthwise direction, and passes through a portion without the partition wall 4d at a front side end. Then, the toner is further fed to the back side in the lengthwise direction by the stirring screw 4eA, passes through a portion without the partition wall 4d on the back side, and is stirred by the stirring screw 4eB while being fed thereby so as to repeat ~~a circulation~~ the circulation operation.--

Please amend the paragraph starting at page 29, line 17 as follows.

--In the transportation process of the development agent, the layer thickness of the developing agent is regulated by the regulation blade 4c disposed perpendicularly to the sleeve 4a so that a thin layer of the developing agent is formed on the sleeve 4a. When the thin layer of the developing agent is transported to the development pole corresponding to the development section "c", naps (bead chain) are formed by a magnetic force.--

Please amend the paragraph starting at page 30, line 4 as follows.

--The thin layer developing agent on the sleeve 4a, which has passed through the development section c, successively enters the developing agent accommodation unit 4h as the sleeve 4a rotates. Then, the thin layer of the developing agent is separated from the sleeve 4a by the repelling magnetic field of a transportation pole and returned into the developing agent reservoir in the developing agent accommodation unit 4h.--

Please amend the paragraph starting at page 30, line 13 as follows.

--A DC voltage and an AC voltage are applied to the sleeve 4a from ~~a not-shown~~ an unillustrated power supply. In this embodiment, a DC voltage of -500V and an AC voltage having a frequency of 2000 Hz and a peak to peak voltage of 1500V are applied to the sleeve 4a, and only the exposure area exposed by the exposure section "b" of the photosensitive drum 2 is selectively developed.--

Please amend the paragraph starting at page 30, line 21 as follows.

--In general, in the two-component developing method, ~~a development~~ the development efficiency is increased and the quality of an image is enhanced by the application of the AC voltage. ~~On the contrary, however~~ However, there is a danger that ~~a fog~~ fog is liable to occur. To cope with this problem, ~~the fog~~ fog is ordinarily prevented by providing a potential difference between the DC voltage applied to the sleeve 4a and the surface potential of the photosensitive drum 2. More specifically, a bias voltage, which has a potential between the potential of the exposed area of the photosensitive drum 2 and the potential of the non-exposed area thereof, is applied.--

Please amend the paragraph starting at page 32, line 15 as follows.

--Then, the toner is transported toward the ~~discharge opening~~ discharge opening 5f by the rotation of the screw 5a, freely dropped from the discharge opening 5f, and replenished to the development device 4 of the process cartridge 1.--

Please amend the paragraph starting at page 32, line 20 as follows.

--The stirring plate 5b inclines at the extreme end thereof in a rotational radius direction, and when the stirring plate 5b comes into sliding contact with the wall surface of the toner replenishing container 5, the extreme end of the stirring plate 5b is in contact with the wall surface at a certain angle. More specifically, the extreme end side of the stirring plate 5b is twisted and made to a spiral shape. As described above, since the extreme end of the stirring plate 5b is twisted and inclines, a force for transporting the toner in an axial direction is generated, thereby transporting the toner ~~is transported~~ in the lengthwise direction.--

Please amend the paragraph starting at page 33, line 23 as follows.

--The intermediate transfer unit 54 has the intermediate transfer belt 54a traveling in the direction of ~~an arrow~~ the arrow adjacent the belt 54a in Fig. 2 and travels in the clockwise direction shown by the arrow at a peripheral speed ~~approximately similarly to~~ approximating the outer peripheral speed of the photosensitive drum 2. The intermediate transfer belt 54a is composed of an endless belt having a peripheral length of about 940 mm and stretched around three rollers, i.e. a drive roller 54b, a secondary transfer facing roller 54g, and a follower roller 54c.--

Please amend the paragraph starting at page 34, line 13 as follows.

--The transfer rollers 54fY, 54fM, 54fC, and 54fK are energized by ~~a not-shown~~ an unillustrated high voltage power supply, charged at a polarity opposite to that of the toner from the back side of the intermediate transfer belt 54a, and sequentially transfer the toner images on the photosensitive drums 2 onto the upper surface of the intermediate transfer belt 54a.--

Please amend the paragraph starting at page 35, line 6 as follows.

--When the recording medium 52 enters the secondary transfer section, a predetermined bias is applied to the secondary transfer roller 54d, thereby secondarily transferring the toner images on the intermediate transfer belt 54a ~~are secondarily transferred~~ onto the recording medium 52.--

Please amend the paragraph starting at page 35, line 12 as follows.

--At this time, the recording medium 52 ~~sandwiched~~ sandwiched between both the intermediate transfer belt 54a and the secondary transfer roller 54d is subjected to the transfer step and at the same time transported left in the figure at a predetermined speed toward the fixing means where a next step is executed.--

Please amend the paragraph starting at page 35, line 19 as follows.

--A cleaning unit 55 is disposed at a predetermined position of the intermediate transfer belt 54a on the most downstream side of the transfer ~~step so~~ operation as to come into contact

with and separate from the surface of the intermediate transfer belt 54a and removes the toner that remains on the surface after the secondary transfer.--

Please amend the paragraph starting at page 35, line 26 as follows.

--A cleaning blade 55a is disposed in the unit 55 to remove the remaining toner. The unit 55 is attached so as to swing about ~~a not-shown~~ an unillustrated center of rotation, and the blade 55a comes into pressure contact with the intermediate transfer belt 54a in ~~such~~ such a direction that it bites into the belt 54a. The remaining toner captured into the unit 55 is transported into a waste toner tank (not shown) by a feed screw ~~55b~~ and stored therein.--

Please amend the paragraph starting at page 36, line 24 as follows.

--More specifically, the recording medium 52, on which the toner image is held, is transported by the fixing roller 56a and the pressure roller 56b ~~as well as~~ and the toner image is fixed on the recording medium 52 by the heat and pressure applied thereto.--

Please amend the paragraph starting at page 37, line 20 as follows.

--A swingably supported center determination plate 59 is disposed to cover and expose the openings through which the cartridge 1 is inserted, and the cartridge 1 is inserted and extracted after the center determination plate 59 is opened.--

Please amend the paragraph starting at page 38, line 11 as follows.

--When the cartridge 1 is inserted to the innermost portion of the apparatus body 100, the centering shafts of the apparatus body 100 are inserted into the center holes 2f of the drum flanges 2b, thereby determining the positions of the center of rotation of the photosensitive drums 2 on the back side thereof ~~are determined~~ with respect to the apparatus body 100.--

Please amend the paragraph starting at page 38, line 19 as follows.

--At the same time, driving force transmitting portions 2g formed to the drum flanges 2b are coupled with projecting drum couplings 62a, thereby providing a mechanism for rotating the photosensitive drums 2 ~~can be rotated~~. The driving force transmitting portion 2g used in this embodiment is formed in a twisted triangular prism shape, and by applying a driving force thereto from the apparatus body 100, a driving force is transmitted to the driving force transmitting portion 2g and also a force for pulling the photosensitive drums 2 into the back side is generated.--

Please amend the paragraph starting at page 39, line 3 as follows.

--Further, support pins 63 are disposed ~~to a rear~~ on a rear side plate 65 to position the cartridge 1, and the positions of the frames of the cartridge 1 are fixed by the support pins 63 inserted therein.--

Please amend the paragraph starting at page 39, line 15 as follows.

--In contrast, when the toner replenishing ~~container~~ containers 5 are inserted to the innermost portion of the apparatus body 100, they are fixed to support pins (not shown) projecting from the rear side plate 65. At the same time, recessed drive couplings (not shown) are coupled

with projecting drive couplings (not shown), thereby providing a mechanism for rotating the screw 5a and the stirring shaft 5c ~~can be rotated~~.--

Please amend the paragraph starting at page 39, line 25 as follows.

--Next, a method of breaking down and ~~reproducing~~ refurbishing the process cartridge 1 applied to this embodiment will be explained.--

Please amend the paragraph starting at page 41, line 3 as follows.

--~~An order~~ The order for removing the side covers 4n and 4m is not limited to the order described above.--

Please amend the paragraph starting at page 41, line 5 as follows.

--When the side covers 4n and 4m at both the ends in the lengthwise direction are removed, the photosensitive drum 2 and the charging unit 3 are placed in the state that they are supported by the development device 4. At this time, the development device 4 is supported in a stable attitude by disposing the density sensor 4g at a lower position, thereby permitting the charging unit 3 ~~can be~~ to be easily removed. At the time, the photosensitive drum 2 is roughly positioned with respect to the development device 4 in the lengthwise direction and a radial direction in the state that it is placed on the spacer 4k acting as a gap guarantee member, a development frame 4f for supporting the development sleeve 4a, and bearing members 4i for rotatably supporting the development sleeve 4a. FIG. 6 shows the state of the charging unit broken down in the above step.--

Please amend the paragraph starting at page 43, line 3 as follows.

--At this time, when a torque limiter 2h, which is a part of the load generation means 21, is caught while it is rotated, or does not ~~satisfy its performance~~ adequately perform, a step of replacing the torque limiter 2h with a new one is added. However, it is needless to say that the torque limiter 2h may be replaced even if it is not caught, and the like.

Please amend the paragraph starting at page 43, line 14 as follows.

--The drum shaft 2a, which is inserted into the new photosensitive drum 2, is inserted into the through hole of the development device 4. Then, the taper portion 2i of the load generation means 21 at an extreme end thereof is moved to the vicinity of a side surface of the development device 4 together with the photosensitive drum 2 (refer to FIG. 7). At this time, it is preferable that the development device 4 be kept in such an attitude that the density sensor 4g is disposed at a lower position similarly to the case when the development device 4 is broken down. At the time, the photosensitive drum 2 is roughly positioned with respect to the development device 4 in the lengthwise direction and the radial direction in the state that it is placed on the spacer 4k acting ~~the~~ as the interval guarantee member, the development frame 4f for supporting the development sleeve 4a, and the bearing members 4i for rotatably supporting the development sleeve 4a.--

Please amend the paragraph starting at page 44, line 7 as follows.

--The remaining toner uniforming means 3g and the toner charge control means 3h, which act as a brush member in the charging unit 3, are under the state that remaining toner and



retransferred toner are captured. Thus, a step of cleaning the bush member is executed before the cleaning unit is ~~reproduced~~ refurbished. Further, when the brush member and the charging roller 3a are greatly damaged in their functions, they may be replaced with new ones.--

Please amend the paragraph starting at page 44, line 23 as follows.

--Further, as shown in FIG. 11, it is also possible to attach the charging unit 3 in the state that the photosensitive drum 2 is tentatively fixed by attaching the side cover 4n acting as the first side plate on the drive side up to a midpoint of the development device 4. The midpoint described here means the position to which a cylindrical portion 4n1 is ~~inserted in~~ inserted to such a degree that the extreme end of a cylindrical portion 4n2 for positioning the charging unit 3 shown in FIG. 10 is not caught by the assembly guide 4f3. Further, the midpoint is the position at which the extreme end of the cylindrical portion 4n1 of the side cover 4n on the drive side reaches the vicinity of the end surface of the drum flange and overlaps the end surface of a flange cylindrical portion 2b1. With the above arrangement, the movement of the photosensitive drum 2 is regulated in the lengthwise direction and the radial direction.--

Please amend the paragraph starting at page 47, line 14 as follows.

--At this time, since a gap is formed between the inside diameter of the cylindrical portion 4n1 and the outside diameter of the cylindrical portion 2b1 of the drum flange 2b, the photosensitive drum 2 can be moved ~~only in~~ only by a small amount in a direction perpendicular to the lengthwise direction.--

Please amend the paragraph starting at page 48, line 5 as follows.

--After the side covers 4n and 4m are attached, respectively, ~~reproduction~~ refurbishment, in which the photosensitive drum 2 is replaced, is finished by fixing the side plates to the development device 4 using screws.--

Please amend the paragraph starting at page 48, line 10 as follows.

--Although the method of fixing the side plates to the development device 4 using the screws has been explained in the ~~reproduction~~ refurbishing method of this embodiment, any of methods such as welding, caulking, and the like may be used as long as it can fix a plurality of parts.--

Please amend the paragraph starting at page 48, line 16 as follows.

--Note that the respective steps in the ~~reproduction~~ refurbishing method of this embodiment need not be executed in the order of the steps described above, and the order of the steps may be appropriately changed when it is possible.--

Please amend the paragraph starting at page 48, line 21 as follows.

--Further, in the embodiment described above, there is included the case that a used process cartridge is collected and broken down, the same parts taken out from the broken-down process cartridge are grouped, and then a process cartridge is ~~reproduced~~ refurbished by the ~~reproduction~~ refurbishing method described above using the parts taken out from the used process

cartridge, partly using new parts (which are not reused) when necessary, and further using parts taken out from another process cartridge.--

Please amend the paragraph starting at page 49, line 5 as follows.

--Next, a second embodiment of the present invention will be explained. Since the second embodiment is the same as the first embodiment except a breaking down and ~~reproducing~~ refurbishing method of the process cartridge, the same components as those used in the first embodiment are denoted by the same reference numerals and the explanation thereof omitted.--

Please amend the paragraph starting at page 49, line 12 as follows.

--<Method of breaking down and ~~reproducing~~ refurbishing process cartridge>

Next, a method of breaking down and ~~reproducing~~ refurbishing a process cartridge 1 applied to the embodiment will be explained.--

Please amend the paragraph starting at page 50, line 19 as follows.

--Further, ~~an order~~ the order for removing the side covers 4n and 4m is not restricted to that discussed above.--

Please amend the paragraph starting at page 50, line 22 as follows.

--When the side covers 4n and 4m are removed as described above, the photosensitive drum 2 and the charging unit 3 are in the state that it is supported by the development device 4. At this time, the development device 4 is supported in a stable attitude by disposing a density sensor 4g at a lower position, thereby permitting the charging unit 3 ~~can be~~ to be easily removed. At the time, the photosensitive drum 2 is roughly positioned with respect to the development device 4 in the lengthwise direction and a radial direction in the state that it is placed on a spacer 4k acting as a gap guarantee member, a development frame 4f for supporting the development sleeve 4a, and bearing members 4i for rotatably supporting the development sleeve 4a. FIG. 6 shows the state of the charging unit broken ~~down in~~ down according to the above steps.--

Please amend the paragraph starting at page 52, line 7 as follows.

--As shown in FIG. 2, a developing agent sealed in a developing agent accommodation unit 4h is stirred with stirring screws 4eA and 4eB and supplied to the development sleeve 4a. ~~The surface~~ As shown in Fig. 13, the surface of the photosensitive drum 2, on which the developing agent is coated and which faces the photosensitive drum 2, is covered with (1) a cover member 4p acting as developing agent scattering prevention means and (2) a sheet member 4q, which is held by the cover member 4p and comes into contact with the photosensitive drum 2 in its overall area in the lengthwise direction, ~~except a~~ except for a development section c facing the photosensitive drum 2.--

Please amend the paragraph starting at page 52, line 25 as follows.

--As shown in FIGS. 4 and 13, the development sleeve 4a has spacers 4k rotatably fitted on diameter-reduced journals 4a1 at both ~~the ends thereof~~ ends thereof. Then, bearing members 4i are urged in the direction of the photosensitive drum 2 by a presser spring 4u, thereby positioning the photosensitive drum 2 ~~is positioned~~ by the spacers 4k coming into contact therewith.

Please amend the paragraph starting at page 57, line 11 as follows.

At this time, when a torque limiter 2h, which is a part of the load generation means 21, is caught while it is rotated or does not ~~satisfy its~~ exhibit satisfactory performance, a step of replacing the torque limiter 2h with a new one is added. However, it is needless to say that the torque limiter 2h may be replaced even if it is not caught, and the like.--

Please amend the paragraph starting at page 59, line 5 as follows.

--Further, as shown in FIG. 11, it is also possible to attach the charging unit 3 in a state that the photosensitive drum 2 is tentatively fixed by attaching the side cover 4n acting as the first side plate on the drive side up to a midpoint of the development device 4. The midpoint described here means the position to which a cylindrical portion 4n1 is ~~inserted in~~ inserted to such a degree that the extreme end of a cylindrical portion 4n2 for positioning the charging unit 3 shown in FIG. 10 is not caught by the assembly guide 4f3. Further, the midpoint is the position at which the extreme end of the cylindrical portion 4n1 of the side cover 4n on the drive side reaches the vicinity of the end surface of the drum flange and overlaps the end surface of a drum flange cylindrical portion 2b1. With the above arrangement, the movement of the photosensitive drum 2 is regulated in the lengthwise direction and the radial direction.--

Please amend the paragraph starting at page 61, line 19 as follows.

--At this time, since a gap is formed between the inside diameter of the cylindrical portion 4n1 and the outside diameter of the cylindrical portion 2b1 of the drum flange 2b, the photosensitive drum 2 can be moved only ~~in a small mount~~ by a small amount in a direction perpendicular to the lengthwise direction.--

Please amend the paragraph starting at page 62, line 13 as follows.

--The side ~~cover 4m is~~ covers 4m and 4n are assembled ~~to the side cover 4n~~ from both the sides thereof after the photosensitive drum 2 and the charging unit 3 are placed on the development device 4, thereby determining the positions of the photosensitive drum 2 and the charging unit 3 ~~can be determined~~ with respect to the development device 4. Further, when the charging unit positioning boss 4m3 and the charging unit swing prevention boss 4m4 of the side cover ~~4m is~~ 4m are assembled to the charging unit swing prevention boss 4n3 and the cylindrical portion 4n2 of the side cover 4n up to the positions at which they do not pass through the development frame 4f, the photosensitive drum 2 and the charging unit 3 can be placed on the development device 4.--

Please amend the paragraph starting at page 63, line 4 as follows.

--After the side covers 4n and 4m are attached, respectively, ~~reproduction~~ refurbishing, in which the photosensitive drum 2 is replaced, is finished by fixing the side plates to the development device 4 using screws.--

Please amend the paragraph starting at page 63, line 9 as follows.

--Although the method of fixing that uses the screws has been explained in the reproduction method of this embodiment, any of methods such as welding, caulking, and the like may be used as long as ~~it can~~ they can fix a plurality of parts.--

Please amend the paragraph starting at page 63, line 14 as follows.

--Note that the respective steps in the ~~reproduction~~ refurbishing method of this embodiment need not be executed in the order of the steps described above, and the order of the steps may be appropriately changed when it is possible.--

Please amend the paragraph starting at page 64, line 4 as follows.

--In this case, a replenishing port shutter 1d, which covers the developing agent replenishing port 1b and can be moved the direction of an arrow k, is set at a position at which the developing agent replenishing port 1b is opened (position shown in FIG. 14), thereby ~~it is~~ making it possible to evacuate the developing agent from the developing agent replenishing port 1b and to fill new development agent.--

Please amend the paragraph starting at page 64, line 13 as follows.

--Further, it is possible to more perfectly remove the developing agent in the developing agent accommodation unit 4h and to fill the unit 4 with the new developing agent by ~~using~~ using, together the step of evacuating the developing agent from the developing agent replenishing port 1b and filling the accommodation unit 4h with the new developing agent and the step of removing

the development sleeve 4a, a step of evacuating the developing agent in the developing agent accommodation unit 4h, and filling the accommodation unit 4h with the new developing agent.--

Please amend the paragraph starting at page 65, line 1 as follows.

--Further, in the embodiment described above, there is included a case that a used process cartridge is collected and broken down, the same parts taken out from each broken-down process cartridge ~~is grouped~~ are grouped together, and then a process cartridge is ~~reproduced~~ refurbished by the ~~reproduction~~ refurbishing method described above using parts taken out from the used process cartridge, partly using new parts (which are not reused) when necessary. Further, in the embodiment described above there is included another case that a used process cartridge is collected and broken down, and a process cartridge is ~~reproduced~~ refurbished by the above-mentioned ~~reproduction~~ refurbishing method, using parts taken out from the used process cartridge, partly using new parts (which are not reused) when necessary, and further using parts taken out from another process cartridge.--

Please amend the paragraph starting at page 65, line 18 as follows.

--As described above, according to the present invention, the development unit, the charging unit, and the electrophotographic photosensitive member, which constitute the process cartridge, can be broken down, positioned, and coupled with each other, respectively only by removing the side plates disposed on the sides of the process cartridge. Accordingly, the electrophotographic photosensitive member and a used developing agent can be easily replaced, and the process cartridge can be easily ~~reproduced~~ refurbished.--